DOCUMENT RESUME

ED 208 004 TM 810 681

AUTHOR May, Leslie Steven
TITLE Selected Characteristics of Massachusetts School Districts' Basic Skills Improvement Plans.
PUB DATE 30 Apr 81
NOTE 32p.; Paper presented at the Annual Meeting of the New England Educational Research Organization (Lenox, MA, April, 1981). Best copy available.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Basic Skills; *Educational Improvement; Reading Skills; Secondary Education; Secondary School Mathematics; State Departments of Education; *State Programs; *State School District Relationship; Statewide Planning; Writing Skills
IDENTIFIERS *Basic Skills Improvement Program (Massachusetts); *Massachusetts

ABSTRACT

This report summarizes the contents of the 270 secondary level basic skills improvement program plans for reading, writing, and mathematics submitted by school districts in Massachusetts to the State Department of Education. School districts developed these plans in response to the State Board of Education Policy and Regulations published in 1978-79. Statistics are presented on the major components of the plans: public participation, objectives, assessment instruments, level of achievement, grade level for initial assessment, public information, and follow-up instructional programs and services. An analysis of the data in terms of how school districts appear to have responded to the Policy's requirements is also included. (Author/BW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED208004

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Selected Characteristics of Massachusetts School Districts' Basic Skills Improvement Plans

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. S. May

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Leslie Steven May

Bureau of Research and Assessment
Massachusetts Department of Education

Paper presented at the New England Educational Research Organization Conference, Lenox, MA

April 30, 1981

TM 810 661

TABLE OF CONTENT

I. Introduction 1

II. Secondary Plan Characteristics 3

III. Conclusion 24

Appendix 26

LIST OF TABLES

TABLE 1 Secondary Level Evaluation Instruments Selected by School Districts 9

TABLE 2 Number of Districts Using Approved Secondary Level Commercial Reading Instruments . .10

TABLE 3 Number of Districts Using Approved Secondary Level Commercial Mathematics Instruments 10

TABLE 4 Range of Level of Achievement Established on State Reading Instrument (55 items) 16

TABLE 5 Range of Level of Achievement Established on State Mathematics Instrument (59 Items) 17

TABLE 6 Range of Level of Achievement Established on State Writing Instrument 18

TABLE 7 Grade Level for Initial Evaluation of Secondary Students 19

1. Introduction

This report summarizes the contents of the 270 secondary level basic skills improvement program plans for reading, writing, and mathematics submitted by school districts in Massachusetts to the State Department of Education. School districts developed these plans in response to the Policy on Basic Skills Improvement adopted by the Massachusetts Board of Education on August 29, 1978 and the Regulations governing the implementation of this Policy promulgated by the State Board on January 23, 1979.

Under the Policy and Regulations, school districts were required to develop basic skills improvement program plans for three grade levels in five skills areas. Plans were to be developed for the early elementary (grades K-3), later elementary (grades 4-6), and secondary (grades 7-12) levels. By August 1, 1980, districts needed to establish program plans for the skills of reading, writing, and mathematics. By August 1, 1982, districts will be required to develop plans for the skill of listening and by a later date for the skill of speaking. For their early and later elementary plans, districts submitted to the Department of Education an affirmation form stating they had developed plans for these grade levels. At the secondary level, districts were required to submit written plans to the Department of Education for review and for approval. At all grade levels, program plans included the following components:

1. a description of how administrators, teachers, parents, employers, students (at the secondary level only), and the general public participated in the development of the plan,

2. the basic skills objectives and level of achievement (minimum standards) for each skill area,

3. the assessment instruments selected to evaluate student achievement of minimum standards,

4. the grade level for evaluating students,

5. a description of how the public will receive information about the plan, and

6. a description of the follow-up instructional programs and services to be provided students not achieving minimum standards.

Since school districts were not required to send copies of their elementary level plans to the Department, this report only summarizes secondary level reading, writing, and mathematics plans.

In this summary, statistics are presented on the major components of the secondary plans. These components are:

1. public participation
2. objectives
3. assessment instruments
4. level of achievement
5. grade level for initial assessment
6. public information
7. follow-up instructional programs and services

In addition to presenting a statistical profile of these sections of the plans, this report includes an analysis of the data in terms of how school districts appear to have responded to the Policy's requirements. This summary was completed in December, 1980 and therefore does not reflect any changes or additions in school district plans made since January 1, 1981.

II. Secondary Plan Characteristics

A. Public Participation

This component is analyzed according to the process districts followed for involving administrators, teachers, parents, employers, students, and the general public in the development of their plans.

The most common participatory process districts used was the establishment of a system-wide advisory committee along with one or more subcommittees. One hundred forty-one (141) of the districts, representing 52% of the 270 total plans, used this participatory method. In general, districts which used this approach gave the responsibility of drafting the overall basic skills improvement plan to a system-wide committee. Subcommittees which were organized focused on specific sections of the plan, providing information and/or recommendations to the system-wide group. The types of subcommittee activities included:

1. drafting the plan for one of the three skills areas,
2. reviewing technical issues such as which test should be used, and
3. developing objectives and/or follow-up instructional programs and services.

The second most common method was for districts to establish a system-wide advisory committee and use this committee as the only formalized participatory mechanism. Eighty-two (82) school districts, representing 30% of the total, relied on this approach.

The third most common method was for districts to establish a system-wide committee that provided most of the plan recommendations and to supplement this committee with other mechanisms. These other procedures included public forums, surveys, and meetings with specialized groups such as parent councils or the Chamber of Commerce. Twenty-five (25) districts, representing 10% of the total, employed this method.

The fourth most common approach was for districts to establish two or more subcommittees. Subcommittees which were organized focused on a specific component of the plan or on one of the three skills areas. Districts using this method did not set up one single system-wide committee. Sixteen (16) districts, representing 6% of the total, employed this approach.

Finally, six (6) districts, representing 2% of the total, employed other types of participatory procedures beside the four previously discussed.

Most district plans evidenced genuine participation of representative professional educators and lay goups. In some districts, elaborate mechanisms for involving as many individuals as possible were established. For example, the participatory process in one district involved the following groups and procedures:

1. Curriculum Management Team to design a system-wide strategy to implement program.
2. A system-wide Basic Skills Steering Committee and four K-12 Curriculum Articulation Task Forces (one each of reading, writing, mathematics, and listening/speaking) to develop plams.
3. Over a 1½ year period, the work of these committees was shared several times with school administrators, curriculum heads, coordinators, supervisors, a central parent organization, and these groups' reactions were solicited. Title I staff and student groups were also contacted.

4. The role of parents, students, and employers on the various task forces was specifically stated "to recommend skills areas, test intervals, test instruments, standards, and follow-up programs."

5. Parents received a newsletter summarizing task forces' recommendations.

In another district, a 21 member Community Advisory Committee consisting of parents, employers, and students began holding monthly meetings in the Fall of 1978. This Committee's role was to review the work of a professional basic skills improvement task force (25 members) and advise the task force on such issues as the identification of minimal skill objectives, grade levels to be tested, testing instruments to be used, and establishment of cut-off scores. In addition, members of the district's task force met with over 20 Parent Advisory Councils to inform the community of local program developments. A slide-tape program and parents' guide were prepared for these meetings. In this district, community reactions and suggestions were also solicited via question and answer sessions and surveys. In addition, two community symposiums, attended by more than 100 people, were held. Finally, the work of the professional task force was supplemented by nine separate staff subcommittees, in areas such as secondary language arts, secondary mathematics, special education, and testing.

While a number of other districts also used elaborate participatory procedures such as the two described, there were plans that described only minimal or weak participatory efforts. For example, some districts stated they had difficulty involving employers, parents, and the general public. A few districts indicated they could not find students interested in participating. One district even stated it was philosophically opposed to student participation. Some of the districts with weak participation may have been reluctant to involve other than

professional staff in the development of plans and thus did not do much to solicit the assistance of individuals from outside the system. Other districts seemed to have perceived that public participation had to be implemented through the membership of parents, employers, and others on basic skills advisory committees. These communities may legitimately have experienced difficulty in finding lay representatives who could regularly attend monthly meetings. Districts could have done more by reaching out to pre-existing groups such as PTA's, Title I Parent Advisory Councils, and Rotary Clubs and not viewing participation strictly in terms of membership on advisory committees.

B. Objectives

All districts were required to incorporate into their plans the secondary level basic skills objectives established by the Massachusetts Board of Education (see Appendix for a list of these objectives). Districts could, if they decided to do so, establish additional objectives for their programs. Forty (40) districts included additional objectives. These districts represent 15% of the secondary plans. Additional objectives included the following:

1. Reading

Additional objectives were developed in 27 districts (10% of the plans). The most common objectives were:

a. use word analysis skills to decode words
b. identify appropriate information necessary to complete applications and standard forms
c. use scanning and skimming skills
d. use outlining and categorizing skills

2. Writing

Additional objectives were formulated in 31 districts (11% of the total). Common objectives included:

a. use proper paragraph form
b. use business and friendly letter forms
c. use varied sentence patterns
d. use proofreading skills

3. Mathematics

Additional objectives were developed in 28 districts (10% of the total). Common objectives were:

a. analyze and solve word problems
b. complete check forms and balance checking accounts
c. compute wages
d. compute with powers of 10

The fact that approximately 10% of the districts augmented the state objectives with their own objectives indicates some districts closely examined the relationship of the basic skills program to their on-going curriculum. One of the intents of the Policy was to promote this type of curriculum review.

C. Assessment Instruments

Three assessment instrument options were available to districts - state, commercial, or locally developed. The number and percentage of districts that selected each option for each skill area are presented in Table 1 on page 9.

Over 80% of districts selected the state instrument in each skill area. The state instruments were probably chosen by such a high proportion of districts because these tests covered all the secondary level objectives and were less expensive to administer than commercial instruments. Very few districts opted to develop their own secondary instruments because of the time and costs involved in producing technically sound tests.

The Department of Education approved eleven (11) commercial instruments on the secondary level in reading and eleven (11) in mathematics. The number of districts deciding to use each of the approved instruments is shown in Table 2 and Table 3 on page 10.

The plan development process resulted in many districts giving close attention to the types of test they use and the ways in which they use them. For example, in deciding whether to use the state instrument or commercial tests, some districts did detailed analyses of available options, examining the strengths and weaknesses of the state test as well as several commercial instruments.

TABLE I

SECONDARY LEVEL EVALUATION INSTRUMENTS SELECTED BY SCHOOL DISTRICTS

Option	Skill Area					
	Reading		Writing		Mathematics	
	#	%	#	%	#	%
State Instrument	222	82%	234	87%	231	86%
Approved Commercial Instruments	51	19%	12	4%	42	15%
Approved Local Instruments	2	1%	35	13%	2	1%
TOTAL *	275	102%	281	104%	275	102%

* The total number and percentage of instruments is greater than the number of districts (270) because some districts are using more than one option. Nine districts are using more than one instrument for reading, 11 are using more than one for writing, and 8 for mathematics. Five additional local tests, 2 in reading and 3 in mathematics, are in the process of being reviewed for approval.

TABLE 2 10.

NUMBER OF DISTRICTS USING APPROVED SECONDARY LEVEL COMMERCIAL READING INSTRUMENTS

Instrument	Publisher	Number of Districts
California Achievement Test	CTB/McGraw Hill	12
Comprehensive Test of Basic Skills	CTB/McGraw Hill	11
Iowa Test of Basic Skills	Riverside/Houghton-Mifflin	7
Stanford Achievement Test	Psychological Corporation	7
Basic Skills Assessment	Addison-Wesley/ETS	5
Metropolitan Achievement Test	Psychological Corporation	3
SRA Achievement Series	Science Research Associates	2
Sequential Test of Education Progress	Addison-Wesley/ETS	2
Stanford Diagnostic Test	Psychological Corporation	1
Test of Achievement and Proficiency	Riverside/Houghton-Mifflin	1
		51

TABLE 3

NUMBER OF DISTRICTS USING APPROVED SECONDARY LEVEL COMMERCIAL MATHEMATICS INSTRUMENTS

Instrument	Publisher	Number of Districts
California Achievement Test	CTB/McGraw Hill	12
Comprehensive Test of Basic Skills	CTB/McGraw Hill	10
Iowa Test of Basic Skills	Riverside/Houghton-Mifflin	6
Stanford Achievement Test	Psychological Corporation	6
SRA Achievement Series	Science Research Associates	2
Basic Skills Assessment	Addison-Wesley/ETS	2
Sequential Test of Educational Progress	Addison-Wesley/ETS	1
Metropolitan Achievement Test	Psychological Corporation	1
Stanford Diagnostic Test	Psychological Corporation	1
Test of Achievement and Proficiency	Riverside/Houghton-Mifflin	1
		42

D. Level of Achievement

Level of achievement (also called standards) refers to the performance standards established by school districts to determine which students have mastered and which have not mastered the basic skills objectives stated in their plans. In most cases, schools set a level of achievement by determining a specific "cut-off" or passing score on the instruments used to assess students.

Under the Policy and Regulations, local school systems and not the Department of Education decided how to set the level of achievement and what level would be established. The Department recommended several defensible methods for setting standards, such as the Nedelsky and Contrasting Group procedures. The Department also set several criteria regarding the relationship between the assessment instrument being administered and the level of achievement. The Department adopted these criteria to insure that school systems used instruments in technically sound, reliable, fair, and appropriate ways. These criteria were:

1. The standard could not be expressed as a normed score, such as a grade equivalent, stanine, or percentile. Districts were told to set their standards on the basis of a raw score (number of questions answered correctly) and/or percentage correct.

2. The standards could not vary from one grade (e.g. 7th, 8th, or 9th) to the next within a specific grade level. For example. a district could not establish a standard for 8th grade students of 65% correct and a standard for 10th graders of 75% correct.

3. Standards needed to be set on the basis of all the item included on the specific instrument approved by the Department of Education. For example, districts could not establish standards by using only 30 questions from a 65 item test unless the Department had approved those 30 items as a separate instrument.

A statistical summary of the levels of achievement established by school districts is presented in Table 4, Table 5, and Table 6 in this section. There

are two limitations in these statistics that should be noted. First, standards were summarized only for districts using the state instruments. A compilation of standards on commercial and local instruments was not prepared because too many different instruments were used and standards on these instrumentswere based on instruments that vary in content and level of difficulty.

Second, a number of districts had not established standards when their plans were submitted to the Department. Some of the standard setting procedures required use of actual test results. For example, for the skill of writing, schools must use actual student papers in the process of establishing standards. Because of this situation, the Department allowed districts to submit plans which did not state a specific standard in one or more skill area. These districts, however, were required to state the procedures they will follow to set standards and will have to send the Department their standards before the end of the 1980-81 school year. Therefore, the summary statistics on level of achievement were computed only on the basic of those districts which had established standards as of December, 1980.

The information on level of achievement is presented separately for reading, mathematics, and writing. For each skill area, this information includes the number of districts which have and have not set standards, the mean and median standards established statewide, and the number of standards set within certain ranges of raw scores on the state instruments.

1. Reading

Of the 275 reading instruments being administered in the 270 districts which submitted secondary plans, a level of achievement has already been set

on 178 (65%) of the tests. Of these 178 tests, 142 are the state reading test. The mean (average) standard established, to date, on the state test is 64%. This percentage represents a student correctly answering at least 35 of the 55 questions that appear on each form of the test. The median (or middle) score is 64%. The number and percentage of standards established at different score ranges are presented in Table 4 on page 16

2. Mathematics

Of the 275 mathematics instruments being administered in the 270 districts which submitted secondary plans, a level of achievement has already been set on 179 (65%) of the tests. Of these tests, 148 are the state mathematics test. The mean (average) standard established, to date, on the state test is 60%. This percentage represents a student correctly answereing at least 36 of the 59 questions that appear on each form of the test. The median (or middle) score is 59%. The number and percentage of standards established at different score ranges are presented in Table 5 on page 17.

3. Writing

Of the 281 writing instruments being administered in the 270 districts which submitted secondary plans, a level of achievement has already been set on 122 (43%) of the tests. Of these 122 tests, 98 are the state writing test. The writing instruments will be scored differently from the reading and mathematics tests. As a result, the summary statistics on the level of achievement in writing are not comparable to those computed for reading and mathematics. The state writing instrument is composed of two writing samples - a letter and an essay.

Almost all districts will score these student samples by using the holistic scoring method. This method uses two readers who independently score each sample on a scale ranging from 1 to 4, with a score of 1 assigned to the poorest papers and a score of 4 assigned to the best papers. The scores awarded by each reader are usually totaled so that an individual student's paper can receive scores ranging from 2 through 8 points.

Table 6 on page 18 shows the number of districts setting standards at various score points within the range of 2 through 8 (sum of scores of 2 readers). Some districts established standards within a 1 through 4 or 4 through 16 range. These scores were converted to a 2 through 8 point range for this analysis.

Some districts employed several standard setting procedures, rather than one method, before setting a specific cut-off score. Several districts also paid attention to the potential problems of misclassifying students on the basis of a single test score. These districts have used or will use other data on students, such as multiple test scores and classroom performance, to determine if students who score just above or below the district's "cut-off" score should have the opportunity to be reassessed (using an equivalent form of their basic skills instrument) before being placed in follow-up programs.

The average level of achievement statewide was lower than the staff from the Department of Education and members of the State Board of Education had expected. For example, some districts established standards of less than 50% correct on a reading or mathematics test which most people would consider relatively easy.

The groups who helped develop the Policy (such as an Advisory Committee on Basic Skills Improvement) emphasized the importance of granting each individual community the responsibility of setting standards. If standards appear to have been set conservatively by some districts there may be a number of reasons. One may be that setting a specific standard on a test was a new experience for most communities. As a result, the individuals involved in establishing standards approached this task cautiously. Second, districts may have consciously opted for standards that would not result in the community facing a "remediation" problem they could not readily handle. Third, districts had no empirical information (either on how their students would perform or on the standards set in comparable districts) to guide them in this process.

TABLE 4

RANGE OF LEVEL OF ACHIEVEMENT ESTABLISHED ON STATE READING INSTRUMENT (55 ITEMS)

Raw Score Range (# of items)	Percentage Range (% of items)	Number of Districts with Standards in this Range	Percentage of Districts with Standards in this Range
20-24	36-44%	4	3%
25-29	45-53%	16	11%
30-34	55-62%	42	30%
35-39	64-71%	58	41%
40-44	73-80%	19	13%
45-49	82-89%	3	2%
Total		142	100%

TABLE 5

RANGE OF LEVEL OF ACHIEVEMENT ESTABLISHED ON STATE MATHEMATICS INSTRUMENT (59 ITEMS)

Raw Score Range (# of items)	Percentage Correct (% of items)	Number of Districts with Standards in this Range	Percentage of Districts with Standards in the Range
20-24	34-41%	4	3%
25-29	42-49%	17	11%
30-34	51-58%	46	31%
35-39	59-66%	44	30%
40-44	68-75%	25	17%
45-49	76-83%	9	6%
50-54	85-92%	2	1%
55-59	93-100%	1	1%
Total		148	100%

TABLE 6

RANGE OF LEVEL OF ACHIEVEMENT ESTABLISHED ON STATE WRITING INSTRUMENT*

Raw Score Range	Number of Districts with Standards in this Range	Percentage of Districts with Standards in this Range
3 of 8	20	20%
4 of 8	63	64%
5 of 8	13	13%
6 of 8	2	2%
Total	98	99%

*All raw scores were converted to a 2 through 8 point scale. Two districts are not included in this table since they are using scoring that cannot be converted to this scale. Rounding off results in total percentages not exactly equaling 100%.

E. Grade Level for Initial Evaluation

Districts had the option of beginning the evaluation of secondary level students in either grade 7, grade 8, or the first half of grade 9. Table 7 on this page indicates the number and percentage of districts selecting each of these grades for each of the three skill areas. For all skills, grade 8 is the most common grade selected. Grade 8 was established as the initial level by 61% of the districts for reading, 59% for writing, and 63% for mathematics.

TABLE 7

GRADE LEVEL FOR INITIAL EVALUATION OF SECONDARY STUDENTS*

Skills Area	Grade 7		Grade 8		Grade 9	
	# of Districts	%	# of Districts	%	# of Districts	%
Reading	28	10%	166	61%	76	28%
Writing	21	8%	159	59%	90	33%
Mathematics	22	8%	172	63%	76	28%

*Rounding off results in total percentages not exactly equaling 100%.

F. Public Information

Districts were required to specify how they would make information on their plans available to the public. The information they provided also had to indicate where in the curriculum basic skills were covered and what diagnostic and follow-up instructional services were available. There were several different types of public information methods selected by districts. These methods and the number of districts which have adopted each approach are described in this section. Many districts will be using more than one way to disseminate information on their plans and this situation is reflected in the statistics.

The most common public information mode was publicizing the plan, either in its entirety or in a summary form, in the local newspaper(s). This method was selected by 168 (62%) of the 270 secondary districts. The next most common approach was for districts to make copies of plans available in schools, libraries, and other public buildings. The number of districts using this method was 151 (56% of the total). The third most common method was for districts to develop and disseminate a special brochure describing their plans. This technique was selected by 119 (44%) of the secondary districts. A fourth approach was for districts to send copies of their plans (or a plan summary) to all parents and to other citizens. This method was selected by 57 (21%) of the districts. Finally, 68 (25%) of the districts chose other methods, including radio announcements and public meetings, to disseminate information on their plans.

A weakness in public information efforts is that in many districts only those teachers, parents, and others who were directly involved in the development of plans are aware of the substantive nature of these documents. While each district's plan includes information on how the plan will be

disseminated, the most prevalent methods (information in newspaper and copies of plans available to schools and libraries) may not result in all teachers and parents having knowledge of the plan's contents. Questions and comments Department staff often receive from classroom teachers, for example, indicate that more efforts need to be made on providing all local staff with information on a district's basic skills plan.

G. Follow-Up Instruction Programs and Services

Districts were required to describe in their plans the follow-up instructional programs and services they will provide to students not achieving minimum standards. There were six main types of programs and services described in secondary plans. As in the public information component, many districts will implement more than one of these instructional strategies.

The most common follow-up technique is to provide students with special small group activities, such as tutorials or laboratories (e.g. for improving writing skills). This approach was selected by 160 (59%) of the 270 districts.

The second most common technique is that of placing greater instructional emphasis (within the regular classroom) on those skills that individual students have most mastered. This strategy was indicated in 145 (54%) of the plans.

The third most common approach, selected by 137 (51%) of the districts, is to place students in special basic skills classes.

The fourth most common method, indicated by 119 (44%) of the schools, is to administer diagnostic tests and develop instructional programs in response to the results of these instruments.

Two other common instructional techniques are referring students for core evaluations under Chapter 766*(selected by 66 or 24% of districts) and modify, where appropriate, basic skills curriculum (indicated by 63 or 23% of the districts.

*The Massachusetts Special Education Law.

In addition to these six strategies, other methods will be developed by 34 (13%) of the districts. Examples of other approaches included establishment of basic skills curriculum review committees, development of instructional handbooks for staff, use of community volunteers, and providing in-service programs for staff.

This data indicates many districts have developed several strategies for helping students who don't achieve standards, rather than depending on one approach. In some districts, detailed procedures for diagnosing and solving the problems individual students may encounter in mastering basic skills were developed. For example, one district specified the following seven steps in working with students who don't meet their standards:

1. notification of teachers and parents,
2. development of individual instructional plans for each child scoring below standards,
3. teachers implementing these plans,
4. re-testing in the subsequent grade,
5. administering special diagnostic tests if student doesn't meet the standards a second time, and
6. revisions, where necessary, in the original follow-up plan for individual students.

Some districts have also decided to use approaches that were not generally considered, such as college students as interns or a team of teachers and parents to work with students.

III. Conclusion

In general, a review of all the plans conveys the distinct impression that the majority of school districts responded to the Policy on Basic Skills Improvement in a serious and professional manner. Most plans reflected considerable time, effort, and thought. High attendance at workshops held by the Department of Education, and the number of requests the Department received for information or assistance on the procedures for developing plans were corrobarating evidence that school systems devoted considerable attention to their basic skills improvmeent programs.

There are several aspects of the plans submitted that can be cited as evidence of the seriousness with which most districts developed the specific components of their plans, including the use of objectives, selection of tests, setting of standards, and provisions for follow-up instruction. A number of plans included detailed analyses of where in the curriculum each of the secondary basic skills objectives is taught. These analyses included indication of the objectives taught at each grade level, the objectives taught in specific courses, and/or the objectives stressed in various text-books. The fact that forty districts developed objectives to supplement the state's secondary requirements also indicates the attention paid to the objectives included in plans.

While the overall tone of local plans indicate a positive impact, to date, of the basic skills policy, there are some areas of concern for the Department of Education. The following components of the plans represent places where the Department of Education needs to monitor local implementation efforts and provide assistance to school districts:

1. review of level of achievement (help promote higher standards on the tests being used),
2. promote increased public participation in communities with weak participatory efforts, and
3. insure more information to teachers, parents, and the general citizenry about local basic skills improvement efforts.

APPENDIX

40.04: Secondary Level Minimum Standards

The secondary level minimum standards shall include, but not necessarily be limited to, the following basic skills objectives:

(1) *Reading.*

(a) Basic Word Meaning
1. Identify the meaning of commonly used words within a sentence that does not provide clues to the meaning of the word
2. Identify the meaning of a word within a sentence that provides clues to the meaning of the word

(b) Literal Comprehension
1. Identify the meaning of a written phrase, clause, sentence, or paragraph
2. Demonstrate the ability to follow directions
3. Identify the main idea, supporting details, and conclusion of a paragraph
4. Recognize the sequence of events or ideas in a written passage
5. Identify information on a chart, map, or graph

(c) Interpretive Comprehension
1. Draw conclusions implied in a paragraph or passage
2. Identify cause and effect relationships implied in a paragraph or passage
3. Predict an outcome implied in a paragraph or passage

(d) Evaluative Comprehension
1. Identify a statement as fact or opinion
2. Identify the writer's purpose in a paragraph or passage written to inform or persuade

(e) Locating Information
1. Use the parts of a book
2. Locate information in a variety of sources

(2) *Writing.* Given the opportunity to use a dictionary, students, through their own writing samples, will demonstrate:

(a) Knowledge of the subject
1. The writer has something to say
2. Ideas are supported with relevant details

(b) Clear and consistent purpose

(c) Organization
1. Ideas are related
2. Ideas progress logically from one point to another

(d) An awareness of the intended reader

(e) Precise word choices
1. Words appeal to the reader's senses
2. Words suit the purpose
3. Words are appropriate for the intended reader

(f) Fulfillment of the purpose
1. Adequate information is provided
2. The writing is free of irrelevancy
3. The conclusion reemphasizes the purpose

(g) Correct capitalization and punctuation

(h) Correct spelling

(i) Legible handwriting

(j) Complete sentences

(k) Standard use of nouns, pronouns, verbs, adjectives, and adverbs

(l) Agreement of subject and verb

(3) *Listening.*

(a) Basic Listening Skills
1. Recognize words and phrases used by the speaker
2. Indicate why the speaker can or cannot be understood

(b) Understanding What You Hear
1. Understand spoken words and ideas
2. Identify and understand main ideas
3. Associate important details with main ideas
4. Understand descriptions of events and experiences
5. Understand speaker's purpose

(c) Using What You Hear
1. Understand and respond to survival words used in emergency situations
2. Summarize information and draw conclusions
3. Recognize when words and phrases are used to convince or persuade
4. Follow straightforward directions

(4) *Speaking.*

(a) Basic Oral Communication Skills
1. Use words and phrases appropriate to the situation
2. Speak loudly enough to be heard by a listener or group of listeners
3. Speak at a rate the listener can understand
4. Say words distinctly

(b) Planning, Developing, and Stating Spoken Messages
1. Use words in an order that clearly expresses the thought
2. Organize main ideas for presentation
3. State main ideas clearly
4. Support main ideas with important details
5. Demonstrate knowledge of standard English usage

(c) Common Uses of Spoken Messages
1. Use survival words to cope with emergency situations
2. Speak so listener understands purpose
3. Ask for and give straightforward information
4. Describe objects, events, and experiences
5. Question others' viewpoints

(5) *Mathematics*

(a) Number and Numeration Concepts
1. Recognize number symbols (17, eighteen), whole numbers (34), fractions (½), decimals (3.75), and powers of 10 (10^2)
2. Identify odd and even numbers
3. Put numbers in numerical order $\left[\frac{2}{4} = \frac{1}{2}\right]$
4. Recognize equivalent fractions

(b) Arithmetic Computation
1. Add, subtract, multiply, and divide whole numbers (4069 + 81 + 123, 254 x 17, 16300 – 100)
2. Add and subtract mixed numbers $\left[\begin{array}{r} 2\frac{1}{2} \\ -\ 1\frac{1}{4} \\ \hline \end{array}\right]$
3. Multiply whole numbers or money by fractions (halves, quarters, thirds)
4. Add, subtract, multiply, and divide decimal numbers like money
5. Change a fraction to a decimal (¼ to .25)
6. Find a percent of a number in situations such as simple interest, discounts, commissions, and taxes
7. Use ratio and proportion (mixtures, recipes, scale drawings)
8. Use simple formulas ($A = l \times w$)

(c) Estimation and Approximation
1. Round off numbers to a specified place
2. Approximate the answer to a computation problem (including discounts and percentages)
3. Estimate length, weight/mass, capacity, time, temperature, area, and volume
4. Estimate with money

(d) Measurement and Geometry
1. Choose an appropriate unit of measurement in the U.S. customary system (for example: feet, pounds, and gallons)
2. Choose an appropriate unit of measurement in the metric system (for example: meters, kilograms, and liters)
3. Choose an appropriate measurement instrument involving both U.S. customary and metric units
4. Convert common measurements within the same system
5. Read a scale drawing
6. Use a map to compute highway distances
7. Relate total cost and cost per unit
8. Compute by using temperature
9. Compute by using time
10. Identify right angles and parallel, perpendicular, and intersecting lines like those in a street map
11. Recognize that an object has the shape of a square, rectangle, triangle, or parallelogram

12. Identify the radius, diameter, and center of a circle
13. Recognize that an object has the shape of a cube, cylinder, or sphere
14. Find the perimeter of a triangle, square, and rectangle
15. Find the area of a triangle, square, and rectangle
16. Find the volume of a cube or other rectangular solid

(e) Graphs and Tables

1. Read a table
2. Interpret a bar graph
3. Interpret a circle graph
4. Interpret a line graph

(f) Prediction of Events and Statistics

1. Understand probabilities like those used in weather forecasting or lotteries (the chance something will or will not happen)
2. Find and use averages (mean and median) for a group of numbers